

REMARKS

I. Amendments

Applicants thank the Examiner for allowing claims 1-10 and 13-16, and submit that the remaining claims 19-23 are also directed to patentable subject matter.

Applicants have made minor amendments to claims 6 and 7 to place these claims in further conformance with U.S. patent practice.

Claim 19 is rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement.

Claim 19 has been amended to recite that the enzyme has the capability of catalyzing ester formation between the carboxylic acid group of the hydroxy fatty acid and the ending hydroxyl group of the POAG or POAG-derivative without catalyzing any reaction with an existing ester or other bond on the O-acyl/alkyl/alkenyl-hydroxy fatty acid or derivative thereof. Support for this amendment is provided by original claim 19 and by the specification at page 5, lines 9-16. Accordingly, withdrawal of the rejection of claim 19 under 35 U.S.C. §112, first paragraph, is requested.

Applicants submit that in view of the claim amendments and arguments presented herein, all pending claims 1-10, 13-16, and 19-23 are allowable.

II. Rejection under 35 U.S.C. §102(b)

Claim 19 is rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Biotech. Letters, vol. 16, no. 2, pp. 163-168 (1994) to Janssen et al. ("Janssen").

Anticipation requires that each and every feature of the pending claims be disclosed in a single prior art reference. Applicants submit that Janssen does not anticipate claim 19.

a. Janssen does not disclose the use of derivatized hydroxy fatty acids.

The Examiner alleges the following: (1) Janssen discloses a process of lipase-catalyzed synthesis of oleic acid esters of polyethylene glycol 400; (2) the hydrolytic enzyme used does not affect any existing ester bond; and (3) the polyethylene glycol 400 reads on claim 19. In support of allegation #3, the Examiner relies on the specification at page 6 for a definition of applicable POAG compounds.

Janssen discloses esterification of polyethylene glycol ("PEG") 400 using oleic acid and lipozyme in hexane to obtain PEG monooleate or PEG dioleate (Summary). The oleic acid [alternative name: octadec-9-enoic acid] is an *unsubstituted organic fatty acid* and is used by Janssen in an underivatized form.

In contrast to Janssen, claim 19 is directed to the preparation of a polyoxyalkylene (POAG) ester by reacting a POAG or C₁₋₄-alkyl POAG with the carboxylic acid group of an *O-acylated, O-alkylated, or O-alkenylated hydroxy fatty acid or fatty acid ester*. Janssen does not disclose preparing POAG esters using O-acylated, O-alkylated, or O-alkenylated hydroxy fatty acids or fatty acid esters as a starting material.

Accordingly, the organic acid component used by Janssen is not identical to the organic acid component of the process of claim 19. For at least this reason, Janssen fails to anticipate the claimed invention.

b. The fatty acid disclosed by Jansson has a molecular weight outside the range required for the pending claims.

The Examiner alleges that the PEG 400 disclosed by Jansson reads on claim 19. Applicants disagree.

Claim 19 requires that the POAG or C₁₋₄-alkyl POAG component have between 25 and 455 repeating units. As shown in Table 1 on page 7 of the specification, the molecular weight of the monomer unit of the PEG is 44. In other words, with reference to Formula I on page 5, line 30 of the specification, the molecular weight of the z repeating unit is 44.

Therefore, when z is 25, i.e., the shortest PEG encompassed by claim 19, the molecular weight of the corresponding PEG is 25 x 44, or 1100. Accordingly, the lowest molecular weight PEG which can be used in the process of claim 19 is 1100. This comports with Table 1 which shows that the molecular weight range of the PEGs which are encompassed by claim 19 is from 1100 (z=25) to 20,020 (z=455).

In contrast, Janssen's PEG has a molecular weight of 400, a value which is significantly lower than the minimum PEG molecular weight of 1100 required by claim 19. Accordingly, Janssen's PEG has a molecular weight outside the 1100 to 20,020 (z=25 to 455) molecular weight range of claim 19.

For all of the foregoing reasons, Jansson does not anticipate or disclose the process of claim 19. Accordingly, the rejection of this claims under 35 U.S.C. §102(b) is improper and should be withdrawn.

III. Conclusion

Upon entry of this Amendment, claims 1-10, 13-16, and 19-23 remain pending. Applicants respectfully submit that the pending claims are directed to patentable subject matter. Accordingly, Applicants request expedited allowance of the instant application.

Authorization is hereby given to charge any fee in connection with this communication to Deposit Account No. 23-1703.

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Respectfully submitted,

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